

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-258095

(43)Date of publication of application : 21.09.2001

(51)Int.Cl. H04R 15/00

H04R 3/00

(21)Application number : 2000-064596 (71)Applicant : MATERIAL & INTELLIGENT
DEVICE KENKYUSHO:KK

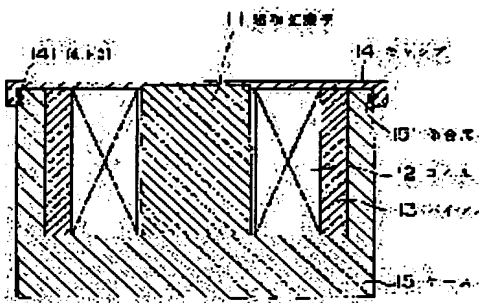
(22)Date of filing : 09.03.2000 (72)Inventor : ISHIYAMA SATOOKA

(54) ACOUSTIC DEVICE AND DRIVE METHOD FOR MAGNETOSTRICTION
VIBRATOR

(57)Abstract:

PROBLEM TO BE SOLVED: To miniaturize an acoustic device which employs an ultra-magnetostriction element, so as to extend application fields of the acoustic device employing the ultra-magnetostriction element.

SOLUTION: The acoustic device is provided with a magnetostriction vibration section 1, that has a coil 12 for generating magnetic field in response to an electrical signal (sound signal), a bias magnet 13 for adjusting its magnetic field, an ultra-magnetostriction element 11 that is expanded/contracted depending on the magnetic field, a case 15 containing them, and a cap 14 that seals the



case 15 in direct contact with the ultra-magnetostirictive element 15. This acoustic

BEST AVAILABLE COPY

device delivers vibration obtained by transducing the sound signal through pressing the cap 14 in contact with the object to vibrate the object, thereby exhibiting the sound effect. The ultra-magnetostrictive element 11 is placed, in the case while applying pre-stress to the ultra-magnetostrictive element 11 in the depth direction of the case 15 to enhance the transducing efficiency. The acoustic device is used for a headphone to be worn on a part of a head of a person behind the ear or the like.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision
of rejection]

[Kind of final disposal of application other
than the examiner's decision of rejection
or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against
examiner's decision of rejection]

[Date of extinction of right]